CAIT
Center for Advanced Infrastructure & Transportation
Rutgers, The State University of New Jersey

,NJDOT Bureau of Research
QUARTERLY PROGRESS REPORT

Project Title:	Material Characterization and Seasonal Variation in Material Properties
RFP NUMBER:	NJDOT RESEARCH PROJECT MANAGER: Mr. Tony Chmiel
TASK ORDER NUMBER: Task Order No. 100 / 4-26701	PRINCIPAL INVESTIGATOR: Dr. Nenad Gucunski
Project Starting Date: 01/01/2001 **Original** Project Ending Date: 12/31/2004 **Modified Completion Date: 6/30/2005**	Period Covered: 2nd Quarter 2005

Task	% of Total	% of Task this quarter	% of Task to date	% of Total Complete
Selection of Test Sections	5	0	100	5
Field Testing & Instrumentation	50	0	100	50
Analysis	35	5	100	35
Reporting	10	5	95	9.5
TOTAL	100%			99.5

Project Objectives:
The main objective of this study is to calibrate the AASHTO temperature and seasonal adjustment models, or to develop new models. These models will be based on New Jersey conditions and will be used in network and project level FWD analysis.

Project Abstract:
This study is being conducted to calibrate the AASHTO models, or to develop new models, for temperature and seasonal adjustment to suit New Jersey conditions. These models will be used in the network and project level FWD analysis. To achieve the objective of study, twenty-four pavement sections were instrumented and nondestructive testing (NDT) program is being conducted for a period of two years. The main task of the instrumentation is to monitor environmental parameters: air and pavement temperature, moisture, frost/thaw depth and rainfall. Seismic Pavement Analyzer (SPA) and Falling Weight Deflectometer (FWD) are used to evaluate the pavement structural response and its properties on a monthly basis, except during the spring thaw period when it is on a bi-monthly basis. The models will be developed by performing statistical analyses, such as analysis of variance (ANOVA) and regression analysis.

1. Progress this quarter by task:
   - Model development completed.
   - Correlation analysis of FWD and SPA data completed.
   - Draft final report completed.

2. Proposed activities for next quarter by task:

3. List of deliverables provided in this quarter by task (product date):

4. Progress on Implementation and Training Activities:
   N/A

5. Problems/Proposed Solutions:

N/A

Total Project Budget	$1,922,108.00
Modified Contract Amount:	
Total Project Expenditure to date	$1,738,853
% of Total Project Budget Expended	91%

* These are approximate expended amounts for the project; these estimates are for reference only and should not be used for official accounting purposes. For a more accurate project accounting please review the quarterly invoice for this project.